

I claim:

1.

1 A boat trailer tug comprising:
2 a primary collar, a mounting beam fixed to the primary collar and
3 extending to the rear of the primary collar, a hitch tongue connected to the primary
4 collar and extending forward from the primary collar, a hitch assembly component
5 attached to a hitch tongue forward end, and a mast connected to the primary
6 collar;
7 a vertical height adjustment frame attached to the mast and an
8 actuator connected to the vertical height adjustment frame an operable to move
9 the vertical height adjustment frame generally vertically relative to the primary
10 collar;
11 a power unit frame connected to the vertical height adjustment
12 frame, a motor mounted on the power unit frame, at least one tire and wheel
13 journaled on the power unit frame for rotation about a generally horizontal axis,
14 and driven by the motor; and
15 a steering assembly mounted on the vehicle height adjustment
16 frame and connected to the at least one tire and wheel and operable to pivot the
17 at least one tire and wheel about a generally vertical axis to change the direction
18 of movement of said boat trailer tug.

2.

1 A boat trailer tug, as set forth in claim 1, wherein the mast connected
2 to the primary collar includes at least one generally vertical mast beam; and

3 wherein the vertical height adjustment frame is slidably connected to
4 the at least one generally vertical mast beam.

3.

1 A boat trailer tug, as set forth in claim 1, wherein the actuator
2 connected to the vertical height adjustment frame is a linear actuator that is also
3 connected to the primary collar.

4.

1 A boat trailer tug, as set forth in claim 1, wherein the power unit
2 frame is pivotally connected to the vertical height adjustment frame for pivotal
3 movement about a generally vertical axis.

5.

1 A boat trailer tug, as set forth in claim 4, wherein the steering
2 assembly pivots the power unit frame about the generally vertical axis.

6.

1 A boat trailer tug comprising:
2 a primary collar, a mounting beam fixed to the primary collar,
3 extending to the rear of the primary collar and connectable to a boat trailer, a hitch
4 tongue connected to the primary collar and extending forward from the primary
5 collar, and a hitch assembly component attached to a hitch tongue forward end;
6 a primary mast including a primary front vertical member with a front
7 member lower end fixed to the primary collar, a primary rear vertical member with

8 a rear member lower end fixed to the primary collar, and a primary horizontal
9 beam fixed to a primary front vertical member upper end and a primary rear
10 vertical member upper end;
11 a vertical height adjustment frame slidably attached to the primary
12 front vertical member and the primary rear vertical member of the primary mast;
13 a linear actuator connected to the primary collar and to the vertical
14 height adjustment frame to slide the vertical height adjustment frame relative to
15 the primary mast;
16 a power unit frame pivotally connected to the vertical height
17 adjustment frame for pivotal movement about a generally vertical axis, a motor
18 mounted on the primary frame, at least one tire and wheel journaled on the power
19 unit frame for rotation about a generally horizontal axis and driven by the motor;
20 and
21 a steering assembly connected to the power unit frame for pivoting
22 the power unit frame about the generally vertical axis relative to the vertical height
23 adjustment frame.

7.

1 A boat trailer tug, as set forth in claim 6, wherein the linear actuator
2 is connected to the vertical height adjustment frame through a bell crank that is
3 pivotally attached to the primary mast.

8.

1 A boat trailer tug, as set forth in claim 6, including an operator's seat
2 mounted on the primary collar.

9.

1 A boat trailer tug, as set forth in claim 6, wherein the vertical height
2 adjustment frame includes a ring member that is smaller than the primary collar
3 and can pass through the primary collar.

10.

1 A boat trailer tug, as set forth in claim 9, wherein the vertical height
2 adjustment frame includes a secondary mast with a secondary front vertical
3 member connected to the ring member, a secondary rear vertical member
4 connected to the ring member and a second top horizontal bar connected to the
5 secondary front vertical member and the secondary rear vertical member and
6 wherein the power unit frame is pivotally connected to the secondary top
7 horizontal bar.